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# TAXONOMY OF *HELENIUM* SECT. *ACTINEA* (ASTERACEAE)

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## ABSTRACT

*Actinea* Juss. is reduced in status to a section of *Helenium* L., and a taxonomic treatment is presented for the three presently recognized taxa: *Helenium radiatum* (Less.) Bierner (= *H. alternifolium* [Sprengel] Cabrera), *H. donianum* (Hook. & Arn.) Cabrera var. *donianum*, and *H. donianum* var. *linearifolium* (Kuntze) Bierner. The latter, which was originally described as a variety of *Actinea heterophylla* Juss. (= *H. radiatum*), has not been recognized as a valid biologic entity since its description. Sectional relationships and sectional disjunctions are also discussed. This treatment takes into account all known morphologic, cytologic, and chemical data.

## INTRODUCTION

*Helenium* L. sect. *Actinea* (Juss.) Bierner comprises three taxa confined to Argentina and Uruguay. Originally recognized as a separate genus (Jussieu 1803), it was treated by Lessing (1832) and Candolle (1836) as a subgenus of *Cephalophora* Cav. (= *Helenium* L. sect. *Cephalophora* [Cav.] O. Hoffm. of Chile and Peru). Later, Hoffmann (1894) and Cabrera (1941) recognized these taxa as part of *Helenium*, but they did not separate them at the subgeneric level.

For many years the names *Actinea* and *Actinella* Pers. (a superfluous name for the former) were applied to a large number of taxa in both South and North America that are now placed in the closely related genus *Hymenoxys* Cass. (including *Tetraneuris* E. Greene). However, the type species, *Actinea heterophylla* (= *Helenium radiatum*), unquestionably belongs to *Helenium*.

## SECTIONAL RELATIONSHIPS

The taxa of South America originally described in *Actinea* and *Cephalophora* (excluding those that belong to *Hymenoxys*) generally have been recognized as congeneric with *Helenium* (Hoffmann 1894, Cabrera 1941, Bierner 1971), but until recently (Bierner 1978 and this paper), no effort was made to separate them into distinct sections of *Helenium*. Lessing (1832) and Candolle (1836), however, treated the taxa of *Cephalophora* and *Actinea* (the latter as *Actinella*) as congeneric and separated them at the infrageneric level, but they recognized *Cephalophora* as a genus distinct from *Helenium*.